A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING SWIMMING POOL SAFETY MEASURES AMONG MOTHERS OF CHILDREN BELOW 13 YEARS ADMITTED IN PEDIATRIC UNITS IN A SELECTED GOVERNMENT HOSPITAL, DUBAI.

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ABSTRACT

Pools or private swimming areas assist as a backyard-gathering place for friends and family, but when left unattended they can become a deadly attraction for an unsupervised child. Drowning is one of the main causes of injury-related death in children 1-4 years old. The numbers of children that are being hospitalized after being dragged out of water and revived are on the rise). The longer a child is under water and the longer it takes to start cardiopulmonary resuscitation (CPR), the worse the outcome. Pools are awesome‼ Fishes are able to live and breathe in water, but people need air to breathe. People drown when excess water enters into their lungs. Drowning is more common when the weather is warm and among those with frequent access to water. A descriptive study to assess the mother's knowledge regarding swimming pool safety measures among 1 to 13 years admitted in pediatric units in a selected government hospital, Dubai.

Majority of prevalence occurred in private pools without lifeguards, it is suggested that a lifeguard should be present in every pool, Chan JS (2014). Nearly 4000 drowning death occurs annually in US, with drowning representing the most common injury-related cause of death in children 1-4 years of age. Prevention remains the best conduct. The sample of this study was all children below 13yrs old and their parents. For the study content validity of the tool was established after consultation with 5 experts from the field of nursing, pediatrics, minor modifications were made according to the instructions obtained. The questionnaire was prepared in English and Arabic. Distributed the questionnaire to the subjects and gave proper instruction to answer the questions. Data Collected for a period of three months. Participants who met the inclusion criteria in the selected pediatric hospital were contacted and the purpose of the study was explained to them. Researcher selected 200 participants and approached the subjects individually and after taking consent from the subject, proper instructions given to answer the questionnaire and thus collected data. A comfortable environment was ensured to each participant. It took around 15 minutes to collect the data from one subject.

Analysis is the categorizing; ordering, manipulating and summarizing of data, to reduce the data to intelligible and interpretable form, those relations of research problem can be studied and tested.

Out of 200 samples, the study shows that Majority (63%) of children with age group of 0 to 5 years. 27% of total population had someone close to them been affected by drowning or near drowning. Data shows that 62.5% of mothers selected drowning as a major cause of death under the age of five in UAE. It was found that most (54.5%) of them have pool at their residences

Majority (52.5%) of mothers said that staying in visual contact at all times is the appropriate adult supervision for children under the age of five playing in or around the pool. Mostly (32%) of mothers considered media and posters are the best source of advice about drowning prevention, and 49% from hospital education. With regard to know how to perform CPR 73.5% of them are not sure about CPR. It was found that most (85%) of mothers agreed CPR is very necessary to know.

Keywords: *Pools, swimming areas, drowning, swimming pool safety.*

INTRODUCTION

"Life is Cool by the Pool "Know How Deep Before You Dive "

Pool is a main source for entertainment and enjoyment. Pools or private swimming areas assist as a backyard-gathering place for friends and family, but when left unattended they can become a deadly attraction for an unsupervised child, Christophe Keller, (2021). Hospitalization rates for near-drowning peak in the toddler age group, with a five-fold increased risk compared with older children. Infant and toddler drowning occur in or around the home, with infants mostly in bathtubs, and toddlers falling into swimming pools. Nevertheless, accidents can occur anywhere, let it be someone's house or even at your own and that is why need to know how to be safe around water. Drowning is a leading cause of accidental death for children are younger than five, CDC (2021). The risks of drowning are unlike for children of diverse ages and in different settings, that's why this study is being undertaken to assess the mother's knowledge regarding swimming pool safety measures among 1 to 13 years admitted in pediatric units in a selected government hospital, Dubai. "Being in the water with your little kid is a terrific bonding experience,"

BACKGROUND OF THE STUDY:

"Never put an age limit on your dreams".

Drowning is one of the main causes of injury-related death in children 1-4 years old. The numbers of children that are being hospitalized after being dragged out of water and revived are on the rise). The longer a child is under water and the longer it takes to start cardiopulmonary resuscitation (CPR), the worse the outcome. It only takes about 4-6 mts for permanent brain damage, 5- 10% of survivors suffer with this. It takes just minute for a child under water to die. Some parents are being faced with experiencing the unfortunate for their children by sidestepping safety rules for swimming pools at home despite strict regulations being in place. While some parents neglect to supervise children, some owners of swimming pools in private villas break safety norms in the name of suitability and aesthetics, according to officials and industry experts.

Gulf News (2018) go back to the issue in light of two Emirati toddlers drowning in a villa pool in Mirdif in Dubai. One-and-a-half-year-old girl and her two-and-a-half-year-old cousin drowned after reportedly sneaking into the pool while their parents were having iftar. In light of review reported that "Some people even seek exceptions in executing some of the safety rules. They even gave letters of undertaking from municipality to approve exemptions as they see positive requirements like fences as less aesthetic." Some owners do not agree to keep safe depth levels, he added. "Kids' pool should have only 45cm to 50cm depth, but they want to make it 75cm to 80cm." Some other safety violations that have been seen in private pools include lack of depth marking, chlorinator to release right amount of chlorine to clean the water, warning boards to supervise children aged below 12 years in common swimming pools meant for a number of villas. Salman pointed out that people also flout one of the most important safety rules that the pool fence, which should mandatorily be 90cm high, must always be secured with child lock. Dubai Municipality will be collaborating with children's events to conduct awareness programs on swimming pool safety, a senior official told Gulf News. The municipality's campaign titled 'Is Your Home Safe', which has a segment on pool safety, will also be carried out in various schools

NEED FOR STUDY:

"Think Healthy, Swim healthy, Be healthy".

Pools are awesome‼ Fishes are able to live and breathe in water, but people need air to breathe. People drown when excess water enters into their lungs. Drowning is more common when the weather is warm and among those with frequent access to water. Staying safe in and around the water is important. Drowning is a leading cause of unintentional injury death among children 1 to 14 years old WHO, (2021). In fact, drowning kills more young children 1 to 4 years old than any other causes. Many drownings and close calls to drowning's happen when a kid accidentally falls in to a swimming pool. The main factors are lack of physical barriers between people and water; particularly close at home, lack of supervision of young children, lack of water safety awareness and risky behaviors around water. Swimming is a lot of fun, but drowning is a real danger. Even kids who know how to swim can drown.

STATEMENT OF THE PROBLEM:

A descriptive study to assess the knowledge regarding swimming pool safety measures among mothers of children below 13 years admitted in pediatric units in a selected government hospital, Dubai.

OBJECTIVES:

1. To assess the knowledge of mothers on swimming pool safety among children below 13 years
2. To determine the awareness of mothers regarding CPR and first aid measures

OPERATIONAL DEFINITIONS:

Drowning: The process of experiencing respiratory impairment from submersion of water.

Assess: To understand the quality of outcome of Swimming hazards from the mother.

Knowledge: Understanding of or information about a subject that you get by experience or study.
Swimming pool: An artificial area of water for swimming.
Safety: The condition of being protected from or unlikely to cause danger, risk, or injury.

Assumptions

1. The participants answer the questionnaire in an honest and candid manner
2. Mothers have inadequate knowledge related to swimming pool safety.

Delimitations

1. The project conducted in pediatric units in government hospital, Dubai.
2. The project result is limited to small sample size (200)

REVIEW OF LITERATURE:

Studies related to swimming pool safety of toddlers

A study about Toddler drowning prevention found that teaching parents about water safety in conjunction with their child's in-water lessons, Parents (n = 106) of two – 4-year-old toddlers swim school lessons completed a self-directed questionnaire before and after a 10-week poolside water safety program. Pre- and post-program knowledge and beliefs were measured by frequency and chi-square test. This study suggests that toddler lessons in swim schools provide a valuable opportunity to address parental misconceptions about toddler water safety. Further research is required to determine how parents whose toddlers do not attend swimming lessons might similarly benefit from such a program, K Moran, T Stanley (2006).

Majority of prevalence occurred in private pools without lifeguards, it is suggested that a lifeguard should be present in every pool, Chan JS (2014). Nearly 4000 drowning death occurs annually in US, with drowning representing the most common injury-related cause of death in children 1-4 years of age. Prevention remains the best conduct. So education on swimming and water safety lessons and proper fencing are the interventions especially in children 2- 4 yrs. of age must be enforced (Naval hospital Pensacola family medicine residency, USA (2016).

For prevention of injury, supervision includes fostering a safe, stable, and nurturing relationship with every child, Anderst. J, Moffatt. M (2014) Death in pools with lifeguards is uncommon Pettetien AR, Gilchrist J, (2011). Environmental policies such as fixing of 4- sided fences around swimming pools, and behavioral strategies, such as increased supervision of children while around water, are needed to prevent these tragedies, AAP news & Journals (2003).

An article, “Association between Swimming Lessons and Drowning in Childhood: A Case-Control Study,” The 2000 American Academy of Pediatrics (AAP) policy on swimming programs for infants and toddler’s states, “children are generally not developmentally ready for formal swimming lessons until after their fourth birthday.”

Journal of the International Society for Child and Adolescent Injury Prevention states that A community-wide drowning prevention campaign conducted in Washington resulted in a noteworthy increase in life vest use and ownership among children.

A case control study states that, participation swimming lessons associated with an 88% reduction in the risk of drowning in younger children. Ruth A Brenner (2009).

Barabara A Morrongiello (2013) Parents who had experienced in drowning showed greater awareness of children's drowning risk and endorsed more watchful supervision.

RESEARCH METHODOLOGY

It includes the research approach, research design, the study setting and sampling technique. It further deals with the development of tool, procedure for data collection, plan for data analysis and pilot study.

RESEARCH APPROACH

The research approach adopted for this study was Quantitative study with survey approach

RESEARCH DESIGN

A research design is a blue print for conducting the study that maximizes control over the factors that could interfere with the validity of the findings. The research design guides the researcher in planning and implementing the study in a way that is most likely to achieve the intended goal. Cross sectional research design was adopted for this study.

VARIABLES:

Independent variables: swimming pool safety
Dependent variables: knowledge of the mothers

Setting of the study

Setting is the location and condition in which a study is conducted. This study was conducted in the pediatric wards of Latifa women and children Hospital. It is a specialty hospital with facilities of maternal and child care. The bed strength of the hospital is 450. Pediatric wards include pediatric medical, pediatric surgical, and

pediatric isolation. Latifa women and children hospital was selected for this study because of the availability of subject and feasibility to conduct the study.

Study population

According to Talbot, (1994) population is a group whose member possesses specific attributes that a researcher is interested in the study. The target population of the study was all children below 13yrs old admitted in pediatric wards of Latifa women and children hospital.

Sample

The sample of this study was all children below 13yrs old and their parents.

Sample size

The sample size consisted of 200 children under the age of 13 years and their parents.

Sampling technique

The samples for the study were selected through purposive sampling technique was used to select the samples as only those samples were selected who were representative of accessible population and meeting inclusion criteria.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria

- All mothers of children under 13 years' old
- Willing mother of children below 13 years

Exclusion criteria

- Mothers of critically ill children's
- Mothers of children with congenital anomaly
- Mothers of children not willing to participate the survey
- Mothers of children who participated in pilot study

RESEARCH TOOL

A self-administered Questionnaire was developed based upon the extensive review of the literature and review of various other tools and used to assess the knowledge of mothers on swimming pool safety. The questionnaire was divided into four parts.

Part A: The first part comprised of questions regarding demographic variables

Part B: The second part comprised of questions regarding knowledge about indoor swimming safety.

Part C: The third part comprised of questions regarding outdoor swimming safety

Part D: The fourth part comprised of questions regarding awareness on first aid measures.

TESTING OF THE TOOL

CONTENT VALIDITY

Validity refers to the degree with which an instrument measures what it is supposed to be measuring (Polit & Hungler, 2000) For the study content validity of the tool was established after consultation with 5 experts from the field of nursing, pediatrics, minor modifications were made according to the instructions obtained. The questionnaire was prepared in English and Arabic.

ETHICAL CONSIDERATIONS:

The ethical permission obtained from the Institutional Ethical & Research Committee and form Central Ethical committee. Study was conducted after obtaining a verbal informed consent from all the participants. Assurance was given to all the participants that confidentiality would be maintained throughout the study.

PILOT STUDY

It was conducted in 20 available samples of children's who met the criteria under study within selected settings for a week to determine the feasibility, relevance and practicability of the study. Data were analyzed and the findings revealed that the study was feasible to conduct at LWCH, Dubai.

DATA COLLECTION PROCEDURE

After obtaining prior permission from the coordinator, the main study conducted in the same setting. A brief introduction given to the subjects about self and the study. Distributed the questionnaire to the subjects and gave proper instruction to answer the questions. Data Collected for a period of three months. Participants who met the inclusion criteria in the selected pediatric hospital were contacted and the purpose of the study was explained to them. Researcher selected 200 participants and approached the subjects individually and after taking consent from the subject, proper instructions given to answer the questionnaire and thus collected data. A comfortable environment was ensured to each participant. It took around 15 minutes to collect the data from one subject.

DATA ANALYSIS

Analysis is the categorizing; ordering, manipulating and summarizing of data, to reduce the data to intelligible and interpretable form, those relations of research problem can be studied and tested. The data obtained by both descriptive and inferential statistics were analyzed in the light of objectives and hypothesis. To compute the data, a master data sheet was prepared by the investigator. Descriptive statistics such as frequency & percentage distribution was used to analyze the collected data for Socio-demographic variables & to assess knowledge score of swimming pool safety.

INTERPRETATION OF DATA

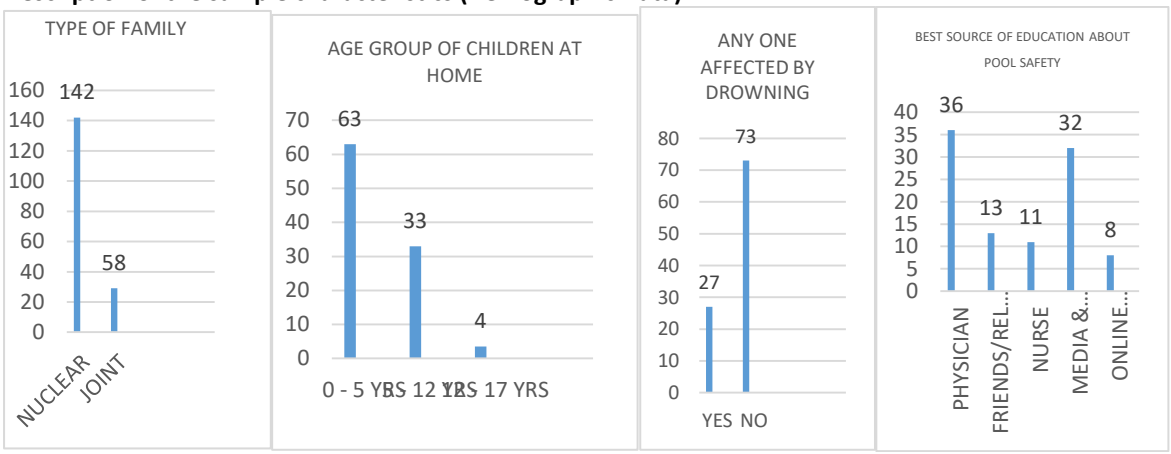
Interpretation is an adequate exposition of true meaning of the material presented in terms of purposes of the study being reported. The chapter deals with analysis and interpretation of data collected from 200 mothers from pediatric units of Latifa women and children hospital to assess the knowledge regarding swimming pools safety.

SECTIONS WERE ORGANIZED UNDER FOLLOWING HEADINGS:

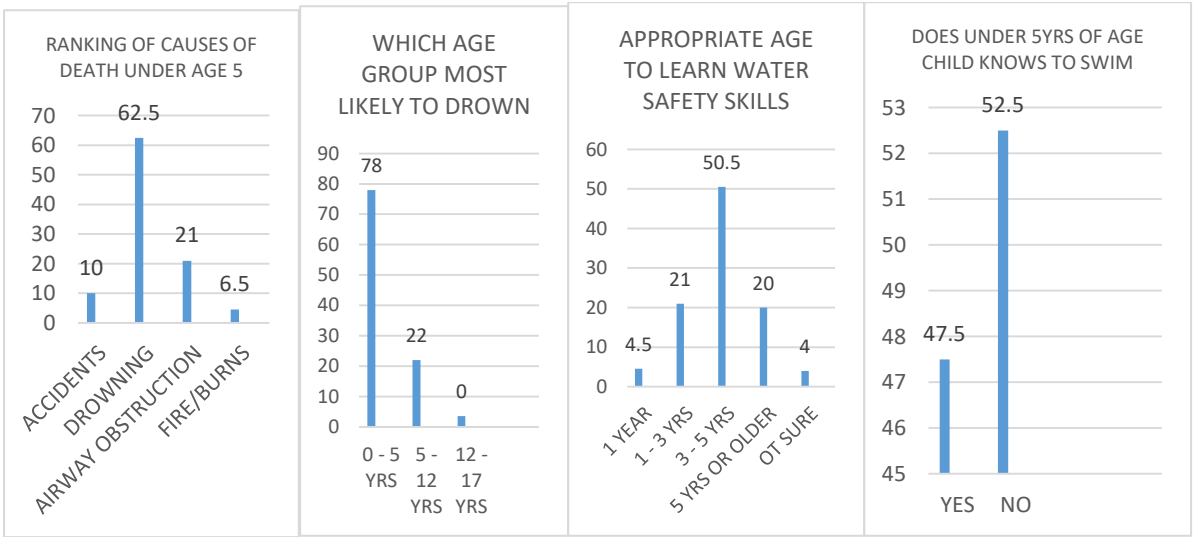
Section I – Description of the sample characteristics (Demographic Data)
Section-II: Assessing the level of knowledge regarding swimming pool safety
Section-III: Assessing the level of knowledge regarding indoor swimming pool safety
Section-IV: Assessing the level of knowledge regarding outdoor swimming pool safety
Section-V: Assessing the level of knowledge regarding Awareness of CPR

SECTION I - DESCRIPTION OF SAMPLE CHARACTERISTICS

Description of the sample characteristics (Demographic Data)



Description of the level of knowledge regarding swimming pool safety



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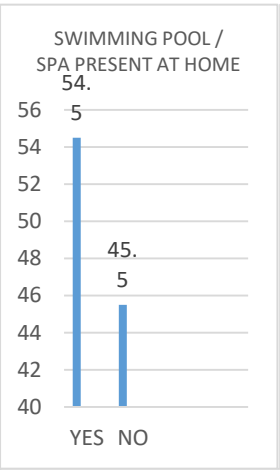
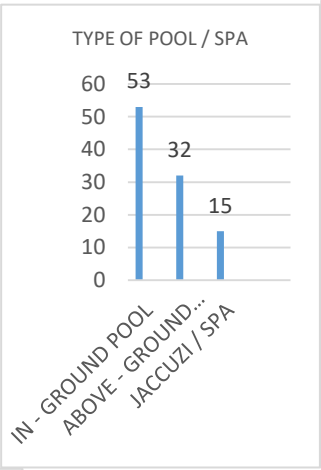
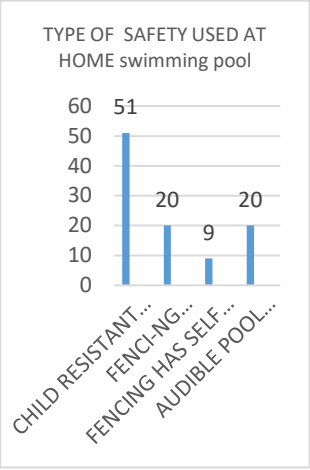
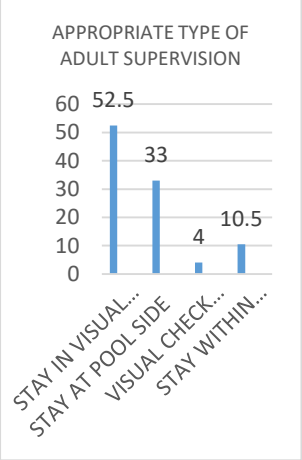
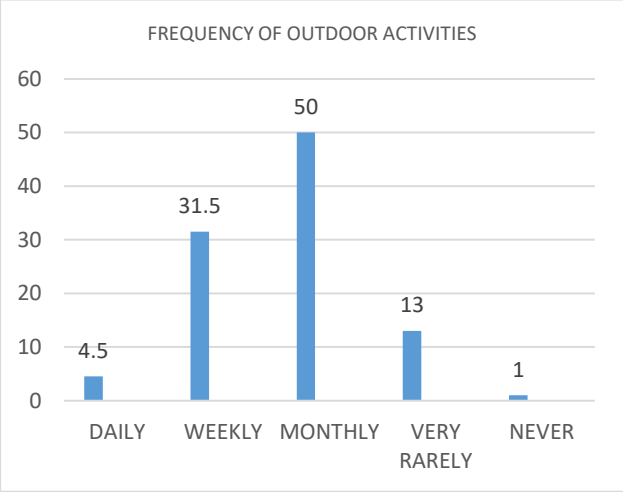


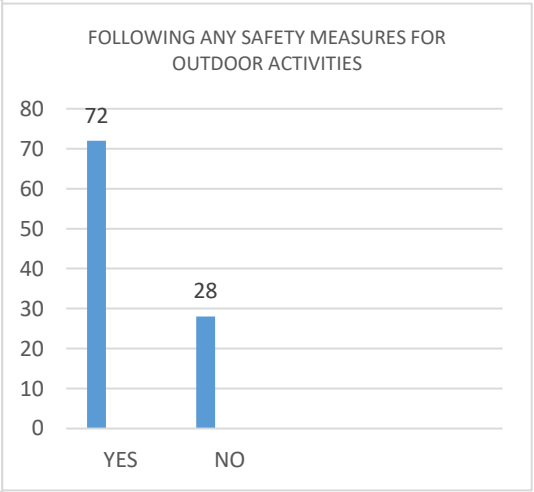




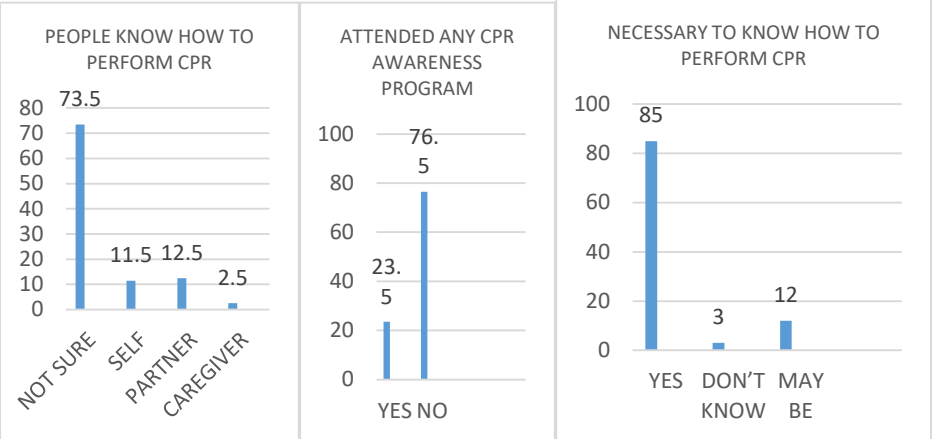


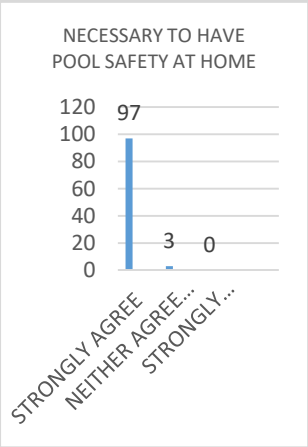
Description of the level of knowledge regarding outdoor swimming pool safety





Description of the level of knowledge regarding Awareness of CPR





MAJOR FINDINGS:

Out of 200 samples, the study shows that Majority (63%) of children with age group of 0 to 5 years. 27% of total population had someone close to them been affected by drowning or near drowning. Data shows that 62.5% of mothers selected drowning as a major cause of death under the age of five in UAE. It was found that most (54.5%) of them have pool at their residences

Majority (52.5%) of mothers said that staying in visual contact at all times is the appropriate adult supervision for children under the age of five playing in or around the pool. Mostly (32%) of mothers considered media and posters are the best source of advice about drowning prevention, and 49% from hospital education. With regard to know how to perform CPR 73.5% of them are not sure about CPR. Majority 76.5% of the population not aware of CPR

It was found that most (85%) of mothers agreed CPR is very necessary to know.

NURSING IMPLICATIONS

Knowledge regarding swimming pool safety among mothers will help to prevent drowning.

More studies can be conducted in these areas in order to strengthen the expanded role of nurse.

LIMITATIONS

The study is specified in one hospital

The study is limited to the population present during data collection.

RECOMMENDATIONS

1. Provision of regular health education and re-education on prevention of drowning to improve the knowledge of parents
2. Place posters and brochures regarding drowning management in pediatric wards
3. Conduct awareness campaigns regarding CPR
4. Provision of videos and demonstration regarding CPR

CONCLUSION:

A study was conducted to assess the knowledge of mothers on swimming pool safety in a selected hospital in Dubai with 200 samples; the research design adopted by the investigator is a cross sectional survey design. A self-administered structured questionnaire was used to assess the knowledge on swimming pool safety. Pilot

study done and the investigator found that the study is feasible. While assessing the knowledge of mothers, The study shows that Majority (63%) of children with age group of 0 to 5 years, 27% of total population had someone close to them been affected by drowning or near drowning, Data shows that 62.5% of mothers selected drowning as a major cause of death under the age of five in UAE, It was found that most (54.5%) of them have pool at their residences, Majority (52.5%) of mothers said that staying in visual contact at all times is the appropriate adult supervision for children under the age of five playing in or around the pool. Data shows that 32% of mothers considered media and posters are the best source of advice about drowning prevention, and 49% from hospital education. With regard to know how to perform CPR 73.5% of them are not sure about CPR, Majority 76.5% of the population not aware of CPR, it was found that most (85%) of mothers agreed CPR is very necessary to know.

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